Louisville Metro Air Pollution Control District
701 West Ormsby Avenue, Suite 303
Louisville, Kentucky 40203-3137

Federally Enforceable District Origin Operating Permit (FEDOOP)

Permit No.: O-0244-18-F Plant ID: 0244

Effective Date: 11/19/2018 Expiration Date: 11/30/2023

Permission is hereby given by the Louisville Metro Air Pollution Control District to operate the process(es) and equipment described herein which are located at:

Source: **Brown-Forman Distillery**
2921 Dixie Highway
Louisville, KY 40216

Owner: **Brown-Forman Corporation**
850 Dixie Highway
Louisville, KY 40201-1080

The applicable procedures of District Regulation 2.17 regarding review by the U.S. EPA and public participation have been followed in the issuance of this permit. Based on review of the application on file with the District, permission is given to operate under the conditions stipulated herein. If a renewal permit is not issued prior to the expiration date, the owner or operator may continue to operate in accordance with the terms and conditions of this permit beyond the expiration date, provided that a complete renewal application is submitted to the District no earlier than twelve (12) months and no later than ninety (90) days prior to the expiration date.

Emission limitations to qualify for non-major status:

Pollutant: PM/PM_{10}
Tons/year: 100

Application No.: See **Application and Related Documents** table.
Public Notice Date: 10/17/2018

Permit writer: Jenny Rhodes

Air Pollution Control Officer
11/19/2018

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Permit Revisions/Changes

Permit No.	Public Notice Date	Issue Date	Change Type	Description/Scope
136-97-TV	01/22/2001	09/24/2000	Initial	Initial Permit Issuance
136-97-TV(R1)	06/01/2012	03/04/2012	Renewal	Permit renewal; Incorporation of construction permits 109-00-C, 43-02-C, 350-05-C, 351-05-C, 352-05-C, 189-06-C, 313-08-C, and 314-08-C.
O-0244-18-F	10/17/2018	11/19/2018	Initial	Initial FEDOOP Issuance and incorporation of 314-08-C(R1)

Construction Permit Summary

Permit No.	Issue Date	Description
314-08-C(R1)	09/07/2018	Modification to convert existing coal fired Boiler #1 (E26) to burn only natural gas.

Application and Related Documents

Document Number	Date Received	Description
38951	05/10/2012	Application for 230 kW diesel emergency generator
39308	05/18/2012	Letter from District to the company stating that a permit is not required for the 230 kW diesel generator
72879	08/06/2015	EPA Exhaust Emission Data Sheet for 60W Natural Gas Emergency Generator
77787	10/09/2015	Letter from the District to the company that the 60W natural gas emergency generator on the construction permit application received August 6 is an insignificant activity (I.A.)
80989	12/22/2016	Title V Permit Renewal Application
81039	12/28/2016	Certificate of Authority
81392	01/20/2017	Notice of Deficiency letter from APCD regarding incomplete Title V Application
82014	02/20/2017	Company response to Notice of Deficiency regarding incomplete Title V Application
77686	02/20/2017	“Administratively complete” verification letter from APCD
84510	06/14/2017	Correspondence regarding welding

Document Number	Date Received	Description
84726	06/14/2017	Correspondence regarding tanks equipped with submerged fill
84823	06/16/2017	Parts washer MSDS/SDS
84880	06/21/2017	Correspondence regarding the size of I.A. tanks
85247	7/14/2017	Correspondence requesting the potential to emit calculations to be revised
86053	8/17/2017	Company's plantwide PTE
89373	12/1/2017	Visible emission survey records for Emission Unit U1
92158	5/18/2018	Application to convert coal fired boiler #1 to natural gas only and 100 tpy synthetic minor PM_{10} limit.
92530	5/21/2018	Additional Forms AP-100B, AP-100C, AP-100D, AP-100H, AP-200E to supplement the 5/18/2018 application.
92618	6/19/2018	Revised Form AP-100A
92626		

Abbreviations and Acronyms

AP-42 - AP-42, *Compilation of Air Pollutant Emission Factors, published by U.S.EPA*
APCD - Louisville Metro Air Pollution Control District
BAC - Benchmark Ambient Concentration
BACT - Best Available Control Technology
Btu - British thermal unit
CEMS - Continuous Emission Monitoring System
CFR - Code of Federal Regulations
CO - Carbon monoxide
District - Louisville Metro Air Pollution Control District
EA - Environmental Acceptability
gal - U.S. fluid gallons
GHG - Greenhouse Gas
HAP - Hazardous Air Pollutant
Hg - Mercury
hr - Hour
in. - Inches
lbs - Pounds
l - Liter
LMAPCD - Louisville Metro Air Pollution Control District
mmHg - Millimeters of mercury column height
MM - Million
NAICS - North American Industry Classification System
NO_x - Nitrogen oxides
PM - Particulate Matter
PM_{10} - Particulate Matter less than 10 microns
$PM_{2.5}$ - Particulate Matter less than 2.5 microns
ppm - parts per million
PSD - Prevention of Significant Deterioration
psia - Pounds per square inch absolute
QA - Quality Assurance
RACT - Reasonably Available Control Technology
SIC - Standard Industrial Classification
SIP - State Implementation Plan
SO_2 - Sulfur dioxide
STAR - Strategic Toxic Air Reduction
TAC - Toxic Air Contaminant
UTM - Universal Transverse Mercator
VOC - Volatile Organic Compound
w.c. - Water column
year - Any period of twelve consecutive months, unless "calendar year" is specified
yr - Year, or any 12 consecutive-month period, as determined by context

Preamble

This permit covers only the provisions of Kentucky Revised Statutes Chapter 77 Air Pollution Control, the regulations of the Louisville Metro Air Pollution Control District (District) and, where appropriate, certain federal regulations. The issuance of this permit does not exempt any owner or operator to whom it has been issued from prosecution on account of the emission or issuance of any air contaminant caused or permitted by such owner or operator in violation of any of the provisions of KRS 77 or District regulations. Any permit shall be considered invalid if timely payment of annual fees is not made. The permit contains general permit conditions and specific permit conditions. General conditions are applicable unless a more stringent requirement is specified elsewhere in the permit.

General Conditions

1. The owner or operator shall comply with all General Conditions herein and all terms and conditions in the referenced process/process equipment list.

2. All terms and conditions in this FEDOOP are enforceable by EPA, except those terms and conditions specified as District-only enforceable, and those which are not required pursuant to the Clean Air Act Amendments of 1990 (CAAA) or any of the Act's applicable requirements.

3. All application forms, reports, compliance certifications, and other relevant information submitted to the District shall be certified by a responsible official. If a change in the responsible official (RO) occurs during the term of this permit, or if an RO is added, the owner or operator shall provide written notification (Form AP-100A) to the District within 30 calendar days of such change or addition.

4. The owner or operator shall submit an annual compliance certification, signed by the responsible official, to the District, on or before April 15 of the year following the year for which the certification applies. This certification shall include completion of District Form 9440-O.

5. Periodic testing, instrumental monitoring, or non-instrumental monitoring, which may include record keeping, shall be performed to the extent necessary to yield reliable data for purposes of demonstrating continuing compliance with the terms and conditions of this permit.

6. The owner or operator shall retain all records required by the District or any applicable requirement, including all required monitoring data and supporting information, for a period of five years from the date of the monitoring, sampling, measurement, report, or application, unless a longer time period for record retention is required by the District or an applicable requirement. Records shall be retrievable within a reasonable time and made available to the District, Kentucky Division for Air Quality, or the EPA upon request.

7. The owner or operator shall provide written notification to the District, and receive approval, prior to making any changes to existing equipment or processes that would result

in emissions of any regulated pollutant in excess of the allowable emissions specified in this permit.

8. This permit may be reissued, revised, reopened, or revoked pursuant to District Regulation 2.17. Repeated violations of permit conditions are sufficient cause for revocation of this permit. The filing of a request by the owner or operator for any reissuance, revision, revocation, termination, or a notification of planned changes in equipment or processes, or anticipated noncompliance shall not alter any permit requirement.

9. Except as otherwise specified or limited herein, the owner or operator shall not allow or cause the emissions to equal or exceed either 10 tons per year, or such lesser quantity as the EPA has established by rule, of any one Hazardous Air Pollutant (HAP) or 25 tons per year of all HAPs combined. Fugitive HAP emissions shall be included in this limit. HAPs are listed in Section 112(b) of the CAAA and as amended in 40 CFR 63, Subpart C.

10. Except as otherwise specified or limited herein, the owner or operator shall not allow or cause the emissions to equal or exceed 100 tons per year of any regulated pollutant, including particulate matter, PM_{10}, $PM_{2.5}$, sulfur dioxide, carbon monoxide, nitrogen oxides, lead, hydrogen sulfide, gaseous fluorides, total fluorides, or Volatile Organic Compounds (VOC); any pollutant subject to any standard in District Regulation 7.02; or any substance listed in sections 112(r), 602(a) and 602(b) of the CAAA. Fugitive emissions shall be included in these limits for source categories listed in District Regulation 2.16.

11. Unless specified elsewhere in this permit, the owner or operator shall complete required monthly record keeping within 30 days following the end of each calendar month.

12. Unless specified elsewhere in this permit, the owner or operator shall submit annual reports demonstrating compliance with the emission limitations specified. The report shall contain monthly and consecutive 12-month totals for each pollutant that has a federally enforceable limitation on the potential to emit. All reports shall include the company name, plant ID number, and the beginning and ending date of the reporting period. The compliance reports shall clearly identify any deviation from a permit requirement or a declaration that there were no such deviations. All annual compliance reports shall include the following per Regulation 2.17, section 3.5.

    - A certification statement: "Based on information and belief formed after reasonable inquiry, I certify that the statements and information in this document are true, accurate, and complete", and
    - The signature and title of a responsible official of the company.

    The report must be postmarked no later than March 1 of the year following the calendar year covered in the annual report.

13. The owner or operator shall comply with all applicable requirements of the following federally enforceable District Regulations:

Regulation	Title
1.01	General Application of Regulations and Standards

Regulation	Title
1.02	Definitions
1.03	Abbreviations and Acronyms
1.04	Performance Tests
1.05	Compliance with Emissions Standards and Maintenance Requirements
1.06	Source Self-Monitoring, Emissions Inventory Development, and Reporting
1.07	Excess Emissions During Startups, Shutdowns, and Upset Conditions
1.08	Administrative Procedures
1.09	Prohibition of Air Pollution
1.10	Circumvention
1.11	Control of Open Burning
1.14	Control of Fugitive Particulate Emissions
1.18	Rule Effectivness
1.19	Administrative Hearings
2.01	General Application (Permit Requirements)
2.02	Air Pollution Regulation Requirements and Exemptions
2.03	Authorization to Construct or Operate; Demolition/Renovation Notices and Permit Requirements
2.04	Construction or Modification of Major Sources in or Impacting Upon Non-Attainment Areas (Emission Offset Requirements)
2.05	Prevention of Significant Deterioration
2.06	Permit Requirements – Other Sources
2.07	Public Notification for Title V, PSD, and Offset Permits; SIP Revisions; and Use of Emission Reduction Credits
2.09	Causes for Permit Modification, Revocation, or Suspension
2.10	Stack Height Considerations
2.11	Air Quality Model Usage
2.17	Federally Enforceable District Origin Operating Permits
3.01	Ambient Air Quality Standards
4.01	General Provisions for Emergency Episodes
4.02	Episode Criteria
4.03	General Abatement Requirements
4.04	Particulate and Sulfur Dioxide Reduction Requirements
4.05	Hydrocarbon and Nitrogen Oxides Reduction Requirements
4.06	Carbon Monoxide Reduction Requirements
4.07	Episode Reporting Requirements
6.01	General Provisions
6.02	Emission Monitoring for Existing Sources
7.01	General Provisions

14. The owner or operator shall comply with all applicable requirements of the following District-only enforceable regulations:

Regulation	Title
1.12	Control of Nuisances
1.13	Control of Objectionable Odors in the Ambient Air
2.08	Fees
5.00	Definitions
5.01	General Provisions
5.02	Adoption and Incorporation by Reference of National Emission Standards for Hazardous Air Pollutants
5.14	Hazardous Air Pollutants and Source Categories
5.20	Methodology for Determining Benchmark Ambient Concentration of a Toxic Air Contaminant
5.21	Environmental Acceptability for Toxic Air Contaminants
5.22	Procedures for Determining the Maximum Ambient Concentration of a Toxic Air Contaminant
5.23	Categories of Toxic Air Contaminants
7.02	Adoption of Federal New Source Performance Standards

15. The owner or operator shall submit emission inventory reports, as required by Regulation 1.06, if so notified by the District.

16. The owner or operator shall submit timely reports of abnormal conditions or operational changes that may cause excess emissions, as required by Regulation 1.07.

17. Applications, reports, test data, monitoring data, compliance certifications, and any other document required by this permit shall be submitted to:

Air Pollution Control District
701 W. Ormsby Avenue, Suite 303
Louisville, Kentucky 40203-3137

Plantwide Requirements

Plantwide Applicable Regulations

FEDERALLY ENFORCEABLE REGULATIONS		
Regulation	**Title**	**Applicable Sections**
1.05	Compliance with Emission Standards and Maintenance Requirements	1 and 4
2.17	Federally Enforceable District Origin Operating Permits	1 through 9

DISTRICT-ONLY ENFORCEABLE REGULATIONS		
Regulation	**Title**	**Applicable Sections**
5.00	Definitions	1, 2
5.01	General Provisions	1 through 2
5.20	Methodology for Determining Benchmark Ambient Concentration of a Toxic Air Contaminant	1 through 6
5.21	Environmental Acceptability for Toxic Air Contaminants	1 through 5
5.22	Procedures for Determining the Maximum Ambient Concentration of a Toxic Air Contaminant	1 through 5
5.23	Categories of Toxic Air Contaminants	1 through 6
STAR regulations are 5.00, 5.01, 5.20, 5.21, 5.22, and 5.23		

Plantwide Specific Conditions

S1. Standards
[Regulation 2.17, section 5.1]

a. Opacity

The owner or operator shall not allow visible emissions to equal or exceed 20% opacity. [Regulations 6.09, section 3.1 or 7.08, section 3.1.1]

b. PM/PM_{10}

The owner or operator shall not allow or cause plantwide emissions of PM/PM_{10} to equal or exceed 100 tons during any consecutive 12-month period. [Regulation 2.17, section 5.1]

c. TAC

i. The owner or operator shall not allow emissions of any TAC to exceed environmentally acceptable (EA) levels, whether specifically established by modeling or determined by the District to be *de minimis*.
[Regulations 5.00 and 5.21]

ii. The owner or operator shall submit with the application for construction for any new emission unit the STAR EA Demonstration for all Category 1 through Category 4 TACs emitted from that emission unit. (Regulation 5.21, section 4.22.1)

i. For any conditions outside the environmental acceptability analysis, including if a new TAC is introduced or the content of a TAC in a raw material increases above *de minimis*, the owner or operator shall verify and document the environmental acceptability of the revised emissions, at the time of the change. Prior approval by the District is not required for a change pursuant to Regulation 5.21 section 4.22.3 if the requirements of 4.23.1 through 4.23.4 are met. Changes to the air dispersion modeling program or meteorological data used in the most recent Environmental Acceptability Demonstration do not trigger the requirement to re-analyze. [Regulation 5.21, sections 4.22 and 4.23]

(1) This includes, but is not limited to, control device upset conditions.

d. VOC

For EU U2a, EP E18h through E18r, and EU U5, EP E33, and E62; the owner or operator shall not allow or cause the plant-wide VOC emissions to exceed 5 tons per consecutive 12-month period, unless modeling or a BACT analysis has been submitted to, and approved by, the District. [Regulation 7.25, section 3]

S2. Monitoring and Record Keeping
(Regulation 2.17, section 5.2)

The owner or operator shall maintain the following records for a minimum of 5 years and make the records readily available to the District upon request.

a. Opacity

i. The owner or operator shall, monthly, conduct a one-minute visible emissions survey, during normal operation, of the emission points. No more than four emission points shall be observed simultaneously. The opacity surveys can be performed on the building exhaust points if the process is inside an enclosure.

ii. At emission points where visible emissions are observed, the owner or operator shall initiate corrective action within eight hours of the initial observation. If the visible emissions persist, the owner or operator shall perform or cause to be performed a Method 9, in accordance with 40 CFR Part 60, Appendix A, within 24 hours of the initial observation.

iii. The owner or operator shall, monthly, maintain records of the results of all visible emissions surveys and tests. Records of the results of any visible emissions survey shall include the date of the survey, the name of the person conducting the survey, whether or not visible emissions were observed, and what if any corrective action was performed. If an emission point is not being operated during a given month, then no visible emission survey needs to be performed and a negative declaration shall be entered in the record.

b. PM/PM_{10}

The owner or operator shall calculate and record the 12 consecutive month plantwide PM/PM_{10} emissions.

c. TAC

i. The owner or operator shall maintain records sufficient to demonstrate environmental acceptability, including, but not limited to MSDS/SDS, analysis of emissions, and/or modeling results.

ii. If there is a change in a process or process equipment, including a new TAC being emitted or the content of a TAC in a raw material increases above *de minimis*, the owner or operator shall verify and document the environmental acceptability of the revised emissions, at the time of the change.

d. VOC

For EU U2a, EP E18h through E18r, and EU U5, EP E33, and E62; the owner or operator shall daily calculate and record the plant-wide consecutive 12-month VOC

emissions for each month in the reporting period. This must include all Emission Points and fugitive sources. Where appropriate, the specific Emission Point control efficiencies and/or emission factors shall be applied. The calculations shall be performed as follows unless otherwise approved in writing by the District: (See Attachment A – Default Emission Factors, Calculation Methodologies, and Stack Tests)

$$VOC = \sum_{1}^{x} [E_x] + F$$

Where:

VOC	=	Total plantwide emissions of VOC subject to Regulation 7.25
E_x	=	VOC emissions from each Emission Point (x)
F	=	Total plantwide fugitive VOC emissions

S3. Reporting

(Regulation 2.17, section 5.2)

The owner or operator shall report the following information, as required by General Condition 12:

a. Opacity

i. The date, time, and results of each visible emissions survey conducted that resulted in visible emissions being observed;

ii. The date, time and results of each Method 9 conducted (or a negative declaration, if none); and

iii. Description of any corrective action taken for periods of excess opacity.

b. PM/PM_{10}

The owner or operator shall report the 12 consecutive month PM/PM_{10} emissions for each month in the report period.

c. TAC

i. Any conditions that were inconsistent with those conditions analyzed in the most recent Environmental Acceptability Demonstration. This includes, but is not limited to, control device upset conditions.

ii. The re-evaluated EA demonstration to the District within 6 months after a change of a raw material.

d. VOC

For EU U2a, EP E18h through E18r, and EU U5, EP E33, and E62; the owner or operator shall report the consecutive 12-month emissions of VOCs for each month in the reporting period.

Emission Unit U1: Grain Handling Operations

U1 Applicable Regulations

FEDERALLY ENFORCEABLE REGULATIONS		
Regulation	**Title**	**Applicable Sections**
6.09	Standards of Performance for Existing Process Operations	1, 2, and 3
7.08	Standards of Performance for New Process Operations	1, 2, and 3

U1 Equipment

Emission Point	Description	Applicable Regulation[1]	Control ID	Stack ID	Installation Date
E1	Truck/Rail Receiving, rated at 7,300 bushels/day – All Grain	6.09	NA	Fugitive	1968
E3-1i	Two (2) grain screw conveyors in series from receiving pit to shaker/grain cleaner, each rated at 7,300 bushels/day	6.09	NA	Fugitive	Pre-1976
E3-1ii					
E3a	Grain Cleaner/Shaker, rated at 7,300 bushels/day	6.09	NA	Fugitive	Pre-1976
E3-2	Grain screw conveyor from shaker to bucket elevator, rated at 7,300 bushels/day	6.09	NA	Fugitive	Pre-1976
E3-3	Bucket elevator from grain screw conveyor to silos, rated at 7,300 bushels/day	6.09	NA	Fugitive	Pre-1976
E3-4i	Two (2) grain screw conveyors from bucket elevator to Silos, each rated at 7,300 bushels/day, in series	6.09	NA	Fugitive	Pre-1976
E3-4ii					
E2a	Corn Storage Silo #1, rated at 5,767 bushels/day	6.09	C1a	S1	1957
E2b	Corn Storage Silo #2, rated at 5,767 bushels/day		C1b	S22	1957
E8a	Small Grain (Malt) Storage Silo #1, rated 1,533 bushels/day	6.09	C3a	S3	1968
E8b	Small Grain (Wheat and Rye) Storage Silo (split compartment inside) #2, rated 1,533 bushels/day		C3b	S23	1968
E3-5	Corn Screw Conveyor from silo to corn cage mill, rated at 7,300 bushels/day	6.09	C2	S2	Pre-1976

[1] 40 CFR 64 (CAM) previously applied to EP E2a, E2b, E8a, E8b, E3-5, E3-6, E4, E10, E3-7i, E3-8i, E3-8ii, E5a, E5b, E11a through E11d, E6, E12a, E12, E3-12i, E3-12ii, and E3-13 because the hourly Regulation 7.08/6.09 limit would have triggered CAM when converted to tpy. However, potential emissions were calculated for this renewal permit, determining that CAM does not apply to this emission unit since control devices are not required to meet a standard.

Emission Point	Description	Applicable Regulation[1]	Control ID	Stack ID	Installation Date
E3-6	Small grain (Malt and Rye) screw conveyor from silo to small grain cage mill rated at 7,300 bushels/day	6.09	C2	S2	Pre-1976
E4	Corn Cage Mill rated at 7,300 bushels/day	6.09	C2	S2	Pre-1976
E10	Small Grain (Malt and Rye) Cage Mill rated at 7,300 bushels/day	6.09	C2	S2	Pre-1976
E3-7i	Screw conveyor from corn cage mill to bucket elevator rated at 7,300 bushels/day	6.09	C2	S2	Pre-1976
E3-8i	Screw Conveyor from small grain cage mill to bucket elevator rated at 7,300 bushels/day	6.09	C2	S2	Pre-1976
E3-7ii	Bucket Elevator from screw conveyor to corn meal bins rated at 7,300 bushels/day	6.09	C2	S2	Pre-1976
E3-8ii	Bucket elevator from screw conveyor to small grain meal bins, rated at 7,300 bushels/day	6.09	C2	S2	Pre-1976
E5a	Internal Grain (Corn) Storage Bin #1, rated at 7,300 bushels/day	7.08	C2	S2	Post-1976
E5b	Internal Grain (Corn) Storage Bin #2, rated at 7,300 bushels/day		C2	S2	Post-1976
E11a	Four (4) Internal Small Grain Storage Bins (Mash Rye Bin, Yeast Rye Bin, Mash Malt Bin, and Yeast Malt Bin), each rated at 7,300 bushels/day	7.08	C2	S2	Post-1976
E11b			C2	S2	Post-1976
E11c			C2	S2	Post-1976
E11d			C2	S2	Post-1976
E6	Gravity feed from corn meal storage bins to corn weigh hopper, rated at 7,300 bushels/day	6.09	C2	S2	Pre-1976
E12a	Gravity feed from storage bins to slurry weigh hopper, rated at 7,300 bushels/day	6.09	C2	S2	Pre-1976
E12	Gravity feed from storage bin to yeast cooker weigh hopper, rated at 7,300 bushels/day	6.09	C2	S2	Pre-1976
E3-12i	Two (2) interior screw conveyors from corn weigh hopper to cookers, each rated at 7,300 bushels/day[2]	6.09	NA	Fugitive	Pre-1976
E3-12ii					
E3-13	Interior screw conveyor from slurry weigh hopper to slurry tank, rated at 7,300 bushels/day[3]	6.09	NA	Fugitive	Pre-1976
E3-14	Gravity feed from yeast weigh hopper to yeast cooker, rated at 7,300 bushels/day	6.09	NA	Fugitive	Pre-1976

[2] The two conveyors are "T" shaped. The first conveyor feeds the second conveyor. The second conveyor feeds all three cookers.

[3] From the slurry tank, liquid is pumped to the mash cookers; therefore, after the slurry tank, the process is no longer a PM source.

U1 Control Devices

Control ID	Description	Control Efficiency	Performance Indicator
C1a	Bin Vent Fabric Filters; DCE, Inc, Model DLV4/7FI	98%	NA
C1b		98%	NA
C2	Pulse Jet Fabric Filter: W.W. Sly, model STJ-78-10	98%	NA
C3a	Bin Vent Fabric Filters; DCE, Inc. Model DLV4/7FI	98%	NA
C3b		98%	NA

U1 Specific Conditions

S1. Standards
[Regulation 2.17, section 5.1]

a. Opacity

See Plantwide Specific Condition.

b. PM/PM_{10}

i. See Plantwide Specific Condition.

ii. For E1, E2a, E2b, E3-1i, E3-1ii, E3a, E3-2, E3-3, E3-4i, E3-4ii, E3-5, E3-6, E3-7i, E3-8i, E3-7ii, E3-8ii, E3-12i, E3-12ii, E3-13, E3-14, E4, E6, E8a, E8b, E10, E12, and E12a each; the owner or operator shall not allow PM emissions to exceed 38.22 lb/hr based on actual operating hours in a calendar day. [Regulation 6.09, section 3.2][4]

iii. For E5a, E5b, and E11a through E11d each; the owner or operator shall not allow PM emissions to exceed 28.34 lb/hr based on actual operating hours in a calendar day. [Regulation 7.08, section 3.1.2][4]

S2. Monitoring and Record Keeping
[Regulation 2.17, section 5.2]

The owner or operator shall maintain the following records for a minimum of five years and make the records readily available to the District upon request.

a. Opacity

There are no monitoring or record keeping requirements for this pollutant.[5]

b. PM/PM_{10}

See Plantwide Specific Condition.

S3. Reporting
[Regulation 2.17, section 5.2]

The owner or operator shall report the following information, as required by General Condition 12:

[4] The potential PM emissions cannot exceed the standard uncontrolled.
[5] The District has determined that no periodic visible emissions surveys are required for this equipment in U1. According to the company's records for the past 5 years, visible emissions have never been seen from the grain handling operation in Emission Unit U1.

a. Opacity

There are no reporting requirements.

b. PM/PM_{10}

See Plantwide Specific Condition.

Emission Unit U1A: Fermentation and Distillation

U1A Applicable Regulations

FEDERALLY ENFORCEABLE REGULATIONS		
Regulation	**Title**	**Applicable Sections**
1.05	Compliance with Emission Standards and Maintenance Requirements	1 and 4
6.13	Standards of Performance for Existing Storage Vessels for Volatile Organic Compounds	All
6.24	Standard of Performance for Existing Sources Using Organic Materials	1 through 5

U1A Equipment

Emission Point	Description	Applicable Regulation	Control ID	Stack ID	Installation Date
E40a	Fermentation Tank (42,000 gal)	6.24 and 1.05	NA	Fugitive	1968
E40b	Fermentation Tank (42,000 gal)		NA	Fugitive	1968
E40c	Fermentation Tank (42,000 gal)		NA	Fugitive	1968
E40d	Fermentation Tank (42,000 gal)		NA	Fugitive	1968
E40e	Fermentation Tank (42,000 gal)		NA	Fugitive	1968
E40f	Fermentation Tank (42,000 gal)		NA	Fugitive	1968
E40g	Fermentation Tank (42,000 gal)		NA	Fugitive	1968
E40h	Fermentation Tank (42,000 gal)		NA	Fugitive	1968
E40i	Fermentation Tank (42,000 gal)		NA	Fugitive	1968
E40j	Fermentation Tank (42,000 gal)		NA	Fugitive	1968
E40k	Fermentation Tank (42,000 gal)		NA	Fugitive	1968
E40l	Fermentation Tank (42,000 gal)		NA	Fugitive	1968
E41	Beer Well Tank (50,000 gal) (I.A.)	6.24 and 1.05	NA	Fugitive	1960s
E42	Heads and Tails Tank (1,200 gal) equipped with submerged fill. (I.A.)	6.13 and 1.05	NA	Fugitive	1960s

U1A Control Devices

There are no control devices associated with this Emission Unit.

U1A Equipment with No Emissions of Regulated Pollutants

Description
Dona tub[6] (26 gallons)
Dona tub (300 gallons)
Mash Cooker 1
Mash Cooker 2
Mash Cooker 3
Yeast Cooker 1
Yeast Tub/Tank 1, 1,500 gal
Yeast Tub/Tank 2, 1,500 gal
Yeast Tub/Tank 3, 1,500 gal
Yeast Tub/Tank 4, 1,500 gal
Yeast Tub/Tank 5, 1,500 gal
Yeast Tub/Tank 6, 1,500 gal
Yeast Tub/Tank 7, 1,500 gal
Yeast Tub/Tank 8, 2,250 gal
Yeast Tub/Tank 9, 2,250 gal
Yeast Tub/Tank 10, 2,250 gal
ST-1, #1 Still equipped with a low wine condenser
ST-2, #2 Still equipped with a low wine condenser
DB-1, Doubler/Thumper with high wine condenser for the #1 Still
DB-2, Doubler/Thumper with high wine condenser for the #2 Still

[6] Yeast, a fungi, is produced in the Dona tubs and stored in the yeast tubs/tanks.

U1A Specific Conditions

S1. Standards
[Regulation 2.17, section 5.1]

a. VOC

i. The owner or operator shall equip E42 with a permanent submerged fill pipe. [Regulation 6.13, section 3.3][7]

ii. The owner or operator shall not allow or cause Class III VOC emissions from fermentation tanks (E40a through E40l) and the beer well (E41) each to equal or exceed 3,000 pounds per day or 450 pounds per hour each. [Regulation 6.24, section 3.3][8]

S2. Monitoring and Record Keeping
[Regulation 2.17, section 5.2]

The owner or operator shall maintain the following records for a minimum of five years and make the records readily available to the District upon request.

a. VOC

There are no monitoring or recordkeeping requirements for this pollutant.

S3. Reporting
[Regulation 2.17, section 5.2]

The owner or operator shall report the following information, as required by General Condition 12:

a. VOC

There are no reporting requirements for this pollutant.

[7] E42 is equipped with a submerged fill pipe.
[8] The standard cannot be exceeded uncontrolled.

Emission Unit U2: Barrel Filling Operation

U2 Applicable Regulations

FEDERALLY ENFORCEABLE REGULATIONS		
Regulation	**Title**	**Applicable Sections**
1.05	Compliance with Emission Standards and Maintenance Requirements	1 and 4
6.13	Standards of Performance for Existing Storage Vessels for Volatile Organic Compounds	All
6.22	Standard of Performance for Existing Volatile Organic Materials Loading Facilities	1 through 3

U2 Equipment

Emission Point	Description	Applicable Regulation	Control ID	Stack ID	Installation Date
E13	Cistern Tank (30,000 gal) (I.A,)	6.13[9] and 1.05	NA	Fugitive	1966
E14	Cistern Tank (30,000 gal) (I.A.)		NA	Fugitive	1966
E15	Cistern Tank (30,000 gal) (I.A.)		NA	Fugitive	1966
E16	Cistern Tank (30,000 gal) (I.A.)		NA	Fugitive	1966
E52	Bulk Loadout Station (I.A.)	6.22 and 1.05	NA	Fugitive	1960's

U2 Control Devices

There are no control devices associated with this Emission Unit.

[9] 40 CFR 60 Subpart Kb does not apply because the cistern tanks were constructed before July 23, 1984.

U2 Specific Conditions

S1. Standards
[Regulation 2.17, section 5.1]

a. VOC

i. The owner or operator shall not store materials with an as stored vapor pressure of greater than or equal to 1.5 psia in the storage vessel(s) E13 through E16. [Regulation 6.13, section 3.3]

ii. For E52,

(1) If the true vapor pressure of the volatile organic material[10] being loaded into any tank, truck, trailer, or railroad car exceeds 1.5 psia; if the volume of material loaded exceeds 200 gallons but is less than 20,000 gallons per day, loading shall be accomplished by submerged fill, bottom loading, or equivalent methods approved by the District. Pneumatic, hydraulic, or other mechanical means shall be provided to prevent liquid organic compounds drainage from the loading device when it is removed from the hatch, or to accomplish complete drainage before such removal. [Regulation 6.22, section 3.1]

(2) The owner or operator shall not load more than or equal to 20,000 gallons per day of volatile organic material. [Regulation 6.22, section 3.1][11]

S2. Monitoring and Record Keeping
[Regulation 2.17, section 5.2]

The owner or operator shall maintain the following records for a minimum of five years and make the records readily available to the District upon request.

a. VOC

i. For E13 through E16 when liquid is present in the cistern tanks, the owner or operator shall daily:

(1) Record the temperature of the product;

(2) If the product temperature equals or exceeds 86ºF, record the percentage of the ethanol stored in each tank; and

(3) If the product temperature equals or exceeds 86ºF, record the vapor pressure of volatile organic material stored in psia.

[10] Per Regulation 6.22, section 2.4, "volatile organic material" means any volatile organic compound which has a true vapor pressure of 78 mm Hg (1.5 psia) or greater under actual storage conditions.
[11] E52 is not controlled.

ii. For E52, the owner or operator shall daily:

(1) Record the product temperature of the material loaded.

(2) If the product temperature equals or exceeds 86ºF, daily record the volume of material loaded in gallons/day;[12]

(3) If the product temperature equals or exceeds 86ºF, daily record the percentage of the ethanol loaded each day; and

(4) If the product temperature equals or exceeds 86ºF, daily record the vapor pressure of volatile organic material loaded each day in psia.

S3. Reporting
[Regulation 2.17, section 5.2]

The owner or operator shall report the following information, as required by General Condition 12:

a. VOC

i. For E13 through E16, the owner or operator shall report:

(1) The highest product temperature during each month of the report period.

(2) If the product temperature equals or exceeds 86 ºF, the day with the highest vapor pressure (psia) for each month in report period.

ii. For E52, the owner or operator shall report:

(1) The highest product temperature during each month of the report period.

(2) If the product temperature equals or exceeds 86ºF,the highest gallon/day throughput for each month in the report period.

[12] This record keeping requirement will demonstrate compliance with Regulation 6.22 to ensure that no more than 20,000 gallons per day of material is loaded. Regulation 6.22 requires controls (90% efficiency) for VOCs when loading more 20,000 gallons/day. E52 is not currently equipped with a control device.

Emission Unit U2A: Barrel Dumping Operations

U2A Applicable Regulations

FEDERALLY ENFORCEABLE REGULATIONS		
Regulation	**Title**	**Applicable Sections**
1.05	Compliance with Emission Standards and Maintenance Requirements	1 and 4
7.12	Standard of Performance for New Storage Vessels for Volatile Organic Compounds	1 through 3
7.22	Standard of Performance for Existing Volatile Organic Materials Loading Facilities	1 through 3
7.25	Standard of Performance for New Sources Using Volatile Organic Compounds	1 through 5

U2A Equipment

Emission Point	Description	Applicable Regulation	Control ID	Stack ID	Installation Date
E18a	10,000 gallon Bulk Interior Storage Tank (I.A.)	7.12 and 1.05	NA	Fugitive	After 1990
E18b	10,000 gallon Bulk Interior Storage Tank (I.A.)		NA	Fugitive	After 1990
E18c	10,000 gallon Bulk Interior Storage Tank (I.A.)		NA	Fugitive	After 1990
E18d	30,000 gallon Bulk Exterior Storage Tank	7.12[13] and 1.05	NA	Fugitive	After 1990
E18e	30,000 gallon Bulk Exterior Storage Tank		NA	Fugitive	After 1990
E18f	30,000 gallon Bulk Exterior Storage Tank		NA	Fugitive	After 1990
E18g	30,000 gallon Bulk Exterior Storage Tank		NA	Fugitive	After 1990
E18h	7,300 gallon Blending Tank (I.A.)	7.25 and 1.05	NA	Fugitive	After 1990
E18i	7,300 gallon Blending Tank (I.A.)		NA	Fugitive	After 1990
E18j	7,300 gallon Blending Tank (I.A.)		NA	Fugitive	After 1990
E18k	7,300 gallon Blending Tank (I.A.)		NA	Fugitive	After 1990
E18m	7,300 gallon Blending Tank (I.A.)		NA	Fugitive	After 1990
E18n	7,300 gallon Blending Tank (I.A.)		NA	Fugitive	After 1990
E18p	7,300 gallon Blending Tank (I.A.)		NA	Fugitive	After 1990
E18q	7,300 gallon Blending Tank (I.A.)		NA	Fugitive	After 1990
E18r	20,000 gallon Blending Tank (I.A.)		NA	Fugitive	After 1990
E53	Truck Loading Rack	7.22 and 1.05	NA	Fugitive	After 1990
E54	Truck Loading Rack		NA	Fugitive	After 1990

U2A Control Devices

There are no control devices associated with this Emission Unit.

[13] Per 60.110b(d)(7), 40 CFR 60 Subpart Kb does not apply to vessels used to store beverage alcohol.

U2A Specific Conditions

S1. Standards
[Regulation 2.17, section 5.1]

a. VOC

i. For E18h through E18r, see Plantwide Specific Condition. [Regulation 7.25, section 3]

ii. The owner or operator shall not store materials with an as stored vapor pressure of greater than or equal to 1.5 psia in the storage vessel(s) E18a through E18g. [Regulation 7.12, section 3.3]

iii. For E53 and E54 each:

(1) If the true vapor pressure of the volatile organic material[14] being loaded into any tank, truck, trailer, or railroad car exceeds 1.5 psia; if the volume of material loaded exceeds 200 gallons but is less than 20,000 gallons per day, loading shall be accomplished by submerged fill, bottom loading, or equivalent methods approved by the District. Pneumatic, hydraulic, or other mechanical means shall be provided to prevent liquid organic compounds drainage from the loading device when it is removed from the hatch, or to accomplish complete drainage before such removal. [Regulation 7.22, section 3.1]

(2) The owner or operator shall not load more than 20,000 gallons per day of volatile organic material. [Regulation 7.22, section 3.1]

S2. Monitoring and Record Keeping
[Regulation 2.17, section 5.2]

The owner or operator shall maintain the following records for a minimum of five years and make the records readily available to the District upon request.

a. VOC

i. For E18h through E18r, see Plantwide Specific Condition.

ii. For E18a through E18g when liquid is present in the tank, the owner or operator shall daily:

(1) Record the temperature of the material;

[14] Per Regulation 7.22, section 2.4, "Volatile organic material" means any volatile organic compound which has a true vapor pressure of 78 mm Hg (1.5 psia) or greater under actual storage conditions.

(2) If the product temperature equals or exceeds 86ºF, record the percentage of the ethanol stored in each tank; and

(3) If the product temperature equals or exceeds 86ºF, record the vapor pressure of volatile organic material stored in psia.

iii. For E53 and E54 each, the owner or operator shall daily:

(1) Record the product temperature of the material loaded.

(2) If the product temperature equals or exceeds 86ºF, daily record the volume of material loaded in gallons/day;

(3) If the product temperature equals or exceeds 86ºF, daily record the percentage of the ethanol loaded each day; and

(4) If the product temperature equals or exceeds 86ºF, daily record the vapor pressure of volatile organic material loaded each day in psia.

S3. Reporting
[Regulation 2.17, section 5.2]

The owner or operator shall report the following information, as required by General Condition 12:

a. VOC

i. For E18h through E18r, see Plantwide Specific Condition.

ii. For E18a through E18g the owner or operator shall report:

(1) The highest product temperature during each month of the report period.

(2) If the product temperature equals or exceeds 86ºF the owner or operator shall report the day with the highest vapor pressure (psia) for each month in report period.

iii. For E53 and E54 each the owner or operator shall report:

(1) The highest product temperature during each month of the report period.

(2) If the product temperature equals or exceeds 86ºF, the owner or operator shall report the highest gallon/day throughput for each month in the report period.

Emission Unit U3: By-Products Process and Handling

U3 Applicable Regulations

FEDERALLY ENFORCEABLE REGULATIONS		
Regulation	**Title**	**Applicable Sections**
1.05	Compliance with Emission Standards and Maintenance Requirements	1 and 4
6.09	Standards of Performance for Existing Process Operations	1, 2, and 3
7.08	Standards of Performance for New Process Operations	1, 2, and 3

U3 Equipment

Emission Point	Description	Applicable Regulation[15]	Control ID	Stack ID	Installation Date
TKS-1	Thick Stillage Tank (500 gal) (I.A.)[16]	1.05	NA	Fugitive	1960s
SBS-1	Setback Storage Tank (4,000 gal) (I.A.)		NA	Fugitive	1960s
TNS-CT	Thin Stillage Catch Tank (less than 500 gal) (I.A.)		NA	Fugitive	1960s
TNS-1	Thin Stillage Tank 1 (40,000 gal) (I.A.)		NA	Fugitive	1960s
TNS-2	Thin Stillage Tank 2 (40,000 gal) (I.A.)		NA	Fugitive	1960s
TNS-3	Thin Stillage Tank 3 (40,000 gal) (I.A.)		NA	Fugitive	1960s
TNS-4	Thin Stillage Tank 4, Overflow Tank, (20,000 gal) (I.A.)		NA	Fugitive	1960s
E31	Rotary Dryer #1	6.09	NA	S20	Pre-1976
E32	Rotary Dryer #2	6.09	NA	S21	Pre-1976
E25	Distillers Dry Grain Storage Tank	7.08	C10	S14	2005
E25i	Screw conveyor for Distillers Dry Grain Storage Tank to main screw conveyor	7.08	NA	Fugitive	Post-1976
E23	Minerals Storage Tank	6.09	C8	S12	Pre-1976
E23i	Screw conveyor for minerals storage tank to main screw conveyor	6.09	NA	Fugitive	Pre-1976
E24	Solubles Storage Tank	6.09	C9	S13	Pre-1976
E24i	Screw conveyor for solubles storage tank to main screw conveyor	6.09	NA	Fugitive	Pre-1976

[15] 40 CFR 64 (CAM) previously applied to E19, E20, E21, E22, E23, E24, and E25. The District has determined that CAM is not applicable to this emission unit since a control device is not required to meet a standard.

[16] The vapor pressure of the material stored in tanks TKS-1, SBS-1, TNS-CT, TNS-1, TNS-2, TNS-3, TNS-4 cannot exceed 1.5 psia. Therefore, Regulation 6.13 is not applicable to these tanks.

U3 Control Devices

Control ID	Description	Control Efficiency	Stack ID
C8	Bin Vent Fabric Filter; DCE, Inc., model V30/15K5	90% for PM/PM_{10}/$PM_{2.5}$	S12
C9	Bin Vent Fabric Filter; DCE, Inc., model V30/15K5	90% for PM/PM_{10}/$PM_{2.5}$	S13
C10	Bin Vent Fabric Filter; DCE, Inc., model V30/15K5	90% for PM/PM_{10}/$PM_{2.5}$	S14

U3 Equipment with No Emissions of Regulated Pollutants

Description
Combined Expansion Cyclone (located on top of the building, this unit provides a “wide spot” to feed the fan. No material is collected or controlled by this unit)
Two (2) Syrup Holding Tanks
Three (3) Treated Water Storage Tanks, 4,000 gallons each

U3 Specific Conditions

S1. Standards
[Regulation 2.17, section 5.1]

a. Opacity

For all U3 emission points subject to Regulation 6.09 or Regulation 7.08, see Plantwide Specific Condition.

b. PM/PM_{10}

i. See Plantwide Specific Condition.

ii. For E23 and E23i each, the owner or operator shall not allow PM emissions to exceed 3.40 lb/hr based on actual operating hours in a calendar day. [Regulation 6.09, section 3.2][17]

iii. For E24, E24i, and each; the owner or operator shall not allow PM emissions to exceed 3.90 lb/hr based on actual operating hours in a calendar day. [Regulation 6.09, section 3.2][17]

iv. For E31 and E32 each, the owner or operator shall not allow PM emissions to exceed 5.64 lb/hr based on actual operating hours in a calendar day. [Regulation 6.09, section 3.2][17]

v. For E19a, E20a, E21a, and E22a each; the owner or operator shall not allow PM emissions to exceed 2.34 lb/hr per piece of equipment based on actual operating hours in a calendar day. [Regulation 7.08, section 3.1.2][17]

vi. For E25, E25i, and E25ii each; the owner or operator shall not allow PM emissions to exceed 3.08 lb/hr per piece of equipment based on actual operating hours in a calendar day. [Regulation 7.08, section 3.1.2][17]

S2. Monitoring and Record Keeping
[Regulation 2.17, section 5.2]

The owner or operator shall maintain the following records for a minimum of five years and make the records readily available to the District upon request.

a. Opacity

For all U3 emission points subject to Regulation 6.09 or Regulation 7.08, see Plantwide Specific Condition.

[17] This equipment cannot exceed the standard uncontrolled.

b. PM/PM_{10}

See Plantwide Specific Condition.

S3. Reporting
[Regulation 2.17, section 5.2]

The owner or operator shall report the following information, as required by General Condition 12:

a. Opacity

For all U3 emission points subject to Regulation 6.09 or Regulation 7.08, see Plantwide Specific Condition.

b. PM/PM_{10}

See Plantwide Specific Condition.

Emission Unit U4: Boilers

U4 Applicable Regulations

FEDERALLY ENFORCEABLE REGULATIONS		
Regulation	**Title**	**Applicable Sections**
7.06	Standards of Performance for New Indirect Heat Exchangers	1 through 5
40 CFR 60 Subpart Dc	Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units	60.40c, 60.41c, 60.48c(a), & 60.48c(g)

DISTRICT-ONLY ENFORCEABLE REGULATIONS		
Regulation	**Title**	**Applicable Sections**
5.00	Definitions	1, 2
5.01	General Provisions	1 through 2
5.20	Methodology for Determining Benchmark Ambient Concentration of a Toxic Air Contaminant	1 through 6
5.21	Environmental Acceptability for Toxic Air Contaminants	1 through 5
5.22	Procedures for Determining the Maximum Ambient Concentration of a Toxic Air Contaminant	1 through 5
5.23	Categories of Toxic Air Contaminants	1 through 6
STAR regulations are 5.00, 5.01, 5.20, 5.21, 5.22, and 5.23		

U4 Equipment

Emission Point	Description	Applicable Regulation[18]	Control ID	Stack ID	Installation Date
E26	Boiler #1 – Henry Vogt; 90 MMBtu/hr; primary fuel is natural gas.	7.06, 40 CFR 60 subpart Dc, STAR	NA	S15	1965, modified 2018
E27	Boiler #2 – Henry Vogt; 55 MMBtu/hr; natural gas	7.06[19], STAR	NA	S16	1973

U4 Control Devices

There are no control devices in this emission unit.

[18] 40 CFR 63 Subpart JJJJJJ is not applicable to gas fired boilers per 40 CFR 63.11195(e)
[19] 40 CFR 60 Subpart Dc does not apply because this boiler was installed before June 9, 1989.

U4 Specific Conditions

S1. Standards
[Regulation 2.17, section 5.1]

a. Opacity

The owner or operator shall not cause to be discharged into the atmosphere from any affected facility particulate matter emissions which exhibit greater than 20% opacity. [Regulation 7.06, section 4.2][20]

b. PM/PM_{10}

i. See Plantwide Specific Condition.

ii. The owner or operator shall not cause to be discharged into the atmosphere from that affected facility particulate matter in excess of 0.13 pounds per million BTU actual total heat input. [Regulation 7.06, section 4.1.4]

c. SO_2

The owner or operator shall not cause to be discharged into the atmosphere from that affected facility any gases that contain sulfur dioxide in excess of 1.0. pounds per million BTU actual total heat input for combustion of gaseous fuels. [Regulation 7.06, section 5.1.1]

d. TAC

See Plantwide Specific Condition.[21]

S2. Monitoring and Record Keeping
[Regulation 2.17, section 5.2]

The owner or operator shall maintain the following records for a minimum of five years and make the records readily available to the District upon request.

a. Opacity

For all U3 emission points subject to Regulation 6.09 or Regulation 7.08, see Plantwide Specific Condition.

[20] The District has determined that using a natural gas fired boiler should inherently meet the 20% opacity standard. Therefore, the company is not required to perform periodic monitoring to demonstrate compliance with the opacity standard.

[21] The TAC emissions from the combustion of natural gas are considered to be *de minimis* emissions per Regulation 5.01, section 1.6.7.

b. PM/PM_{10}

See Plantwide Specific Condition.

c. SO_2

The owner or operator of an affected facility that combusts only natural gas shall keep records of the amount of fuel combusted during each operating month, [40 CFR 60.48c(g)(2)]

d. TAC

See Plantwide Specific Condition.

S3. Reporting
[Regulation 2.17, section 5.2]

The owner or operator shall report the following information, as required by General Condition 12:

a. Opacity

There are no reporting requirements for this pollutant.

b. PM/PM_{10}

See Plantwide Specific Condition.

c. SO_2

There are no reporting requirements for this pollutant.

d. TAC

See Plantwide Specific Condition.

Emission Unit U5: Low-Alcohol Bottling Line

U5 Applicable Regulations

FEDERALLY ENFORCEABLE REGULATIONS		
Regulation	**Title**	**Applicable Sections**
1.05	Compliance with Emission Standards and Maintenance Requirements	1 and 4
7.12	Standard of Performance for New Storage Vessels for Volatile Organic Compounds	1 through 3
7.25	Standard of Performance for New Sources Using Volatile Organic Compounds	1 through 5

U5 Equipment

Emission Point	Description	Applicable Regulation	Control ID	Stack ID	Installation Date
E33	Slurry Tank, 450 gal	7.25 and 1.05	NA	Fugitive	1997
E34	Ingredient Tank, 12,000 gal, equipped with bottom fill[22]	7.12 and 1.05	NA	Fugitive	2005
E35	Batch Tank #1, 10,000 gal (I.A.)	7.12 and 1.05	NA	Fugitive	1997
E36	Batch Tank #2, 10,000 gal (I.A.)		NA	Fugitive	1997
E37	Batch Tank #3, 10,000 gal (I.A.)		NA	Fugitive	1997
E57	Ingredient Tank, 30,000 gal, equipped with submerged fill	7.12 and 1.05	NA	Fugitive	1997
E58	Ingredient Tank, 20, 000 gal, equipped with submerged fill		NA	Fugitive	1997
E59	Ingredient Tank, 10,000 gal, equipped with submerged fill		NA	Fugitive	1997
E60	Ingredient Tank, 7,000 gal		NA	Fugitive	1997
E61	Ingredient Tank, 10,490 gal		NA	Fugitive	1997
E62	Bottle Filler and a 250 gallon buffer tank, 28,395,200 gal/yr	7.25 and 1.05	NA	Fugitive	1997

U5 Control Devices

There are no control devices associated with this Emission Unit.

[22] The District has determined that "bottom fill" is equivalent to "submerged fill."

U5 Specific Conditions

S1. Standards
[Regulation 2.17, section 5.1]

a. VOC

i. For E33, E62, and P-1; see Plantwide Specific Condition. [Regulation 7.25, section 3]

ii. The owner or operator shall equip E34, E57, E58, and E59 with a permanent submerged fill pipe.[23] [Regulation 7.12, section 3.3]

iii. The owner or operator shall not store materials with an as stored vapor pressure of greater than or equal to 1.5 psia in the storage vessel(s) E35, E36, E37, E60 and E61. [Regulation 7.12, section 3.3]

S2. Monitoring and Record Keeping
[Regulation 2.17, section 5.2]

The owner or operator shall maintain the following records for a minimum of five years and make the records readily available to the District upon request.

a. VOC

i. For E33, E62, and P-1; see Plantwide Specific Condition.

ii. The owner or operator of the storage vessel(s) shall maintain records of the material stored and the vapor pressure in each storage vessel and if the contents of the storage vessel(s) E35, E36, E37, E60 and E61 are changed a record shall be made of the new contents, the date of the change, and the new vapor pressure.[24]

S3. Reporting
[Regulation 2.17, section 5.2]

The owner or operator shall report the following information, as required by General Condition 12:

a. VOC

For E33, E62, and P-1; see Plantwide Specific Condition.

[23] E34, E57, E58, and E59 are equipped with a permanent submerged fill pipe.
[24] The vapor pressure listed on the Safety Data Sheet for each material stored will meet this record keeping requirement.

Emission Unit U6: Barrel Storage and Aging Warehouse

U6 Applicable Regulations

FEDERALLY ENFORCEABLE REGULATIONS		
Regulation	**Title**	**Applicable Sections**
1.05	Compliance with Emission Standards and Maintenance Requirements	1 and 4

U6 Equipment

Emission Point	Description	Applicable Regulation	Control ID	Stack ID	Installation Date
E64a	Barrel Filling (4 filling stations)	1.05	NA	Fugitive	1960s
E64b					
E64c					
E64d					
E17-B	Barrel Storage Warehouse (8 warehouses, labelled B, G, H, I, J, K, L, and O)	1.05	NA	Fugitive	1960s
E17-G					
E17-H					
E17-I					
E17-J					
E17-K					
E17-L					
E17-O					
E63a	Barrel Dumping (10 dump stations)	1.05	NA	Fugitive	1960s
E63b					
E63c					
E63d					
E63e					
E63f					
E63g					
E63h					
E63i					
E63j					

U6 Control Devices

There are no control devices associated with this Emission Unit.

U6 Specific Conditions

S1. Standards
[Regulation 2.17, section 5.1]

a. VOC

For this affected facility not required to conduct performance tests pursuant to Regulation 1.05, compliance with emission standards, other than opacity standards, shall be determined by engineering calculations based upon data obtained by District personnel. [Regulation 1.05, section 1.2][25]

S2. Monitoring and Record Keeping
[Regulation 2.17, section 5.2]

The owner or operator shall maintain the following records for a minimum of five years and make the records readily available to the District upon request.

a. VOC

The owner or operator shall keep monthly records of the average barrel inventory in the warehouses. From this information, the owner or operator must calculate the monthly and rolling twelve-month VOC emissions, using an emission factor of 10.5 lb VOC per barrel per year or other emission factor subsequently determined and approved by the District.

S3. Reporting
[Regulation 2.17, section 5.2]

The owner or operator shall report the following information, as required by General Condition 12:

a. VOC

There are no reporting requirements for this pollutant.

[25] Brown-Forman Distillery submitted a Regulation 1.05 compliance plan on 18 August 1993 which determined the emission factor of 10.5 lb VOC per barrel per year to be the average VOC loss for barrels in storage. This emission factor also takes into account losses from filling and emptying the barrels.

Emission Unit IA-1: Cooling Towers

UIA-1 Applicable Regulations

FEDERALLY ENFORCEABLE REGULATIONS		
Regulation	**Title**	**Applicable Sections**
7.08	Standards of Performance for New Process Operations	1, 2, and 3

UIA-1 Equipment

Emission Point	Description	Applicable Regulation	Control ID	Stack ID
CT-1	Cooling Tower (Induced Draft) (I.A.)	7.08	NA	Fugitive
CT-2	Cooling Tower (Induced Draft) (I.A.)	7.08	NA	Fugitive

UIA-1 Control Devices

There are no control devices associated with this Emission Unit.

UIA-1 Specific Conditions

S1. **Standards**
[Regulation 2.17, section 5.1]

a. **Opacity**

See Plantwide Specific Condition.[26]

b. **PM/PM$_{10}$**

i. See plantwide condition.

ii. For CT-1 and CT-2 each, the owner or operator shall not allow PM emissions to exceed 2.34 lb/hr based on actual operating hours in a calendar day. [Regulation 7.08, section 3.1.2][27]

S2. **Monitoring and Record Keeping**
[Regulation 2.17, section 5.2]

The owner or operator shall maintain the following records for a minimum of 5 years and make the records readily available to the District upon request.

a. **Opacity**

There are no monitoring or recordkeeping requirements for this pollutant.

b. **PM/PM$_{10}$**

i. See plantwide condition.

ii. There are no monitoring or recordkeeping requirements for this pollutant.

S3. **Reporting**
[Regulation 2.17, section 5.2]

The owner or operator shall report the following information, as required by General Condition 12:

a. **Opacity**

There are no reporting requirements for this pollutant.

b. **PM/PM$_{10}$**

See plantwide condition.

[26] The District has determined that no periodic visible emissions surveys are required for insignificant activities.
[27] This equipment cannot exceed the PM standard uncontrolled.

Emission Unit IA-2: Blast Cabinets

UIA-2 Applicable Regulations

FEDERALLY ENFORCEABLE REGULATIONS		
Regulation	**Title**	**Applicable Sections**
7.08	Standards of Performance for New Process Operations	1, 2, and 3

UIA-2 Equipment

Emission Point	Description	Applicable Regulation	Control ID	Stack ID
BC-1	Two (2) blast cabinets using glass bead shot, 1265 lb/hr	7.08	NA	Fugitive
BC-2		7.08	NA	Fugitive

UIA-2 Control Devices

There are no control devices associated with this Emission Unit.

UIA-2 Specific Conditions

S1. **Standards**
[Regulation 2.17, section 5.1]

a. Opacity

See Plantwide Specific Condition.[28]

b. PM/PM$_{10}$

i. See plantwide condition.

ii. For BC-1 and BC-2 each, the owner or operator shall not allow PM emissions to exceed 2.34 lb/hr based on actual operating hours in a calendar day. [Regulation 7.08, section 3.1.2][29]

S2. **Monitoring and Record Keeping**
[Regulation 2.17, section 5.2]

The owner or operator shall maintain the following records for a minimum of 5 years and make the records readily available to the District upon request.

a. Opacity

There are no monitoring or recordkeeping requirements for this pollutant.

b. PM/PM$_{10}$

i. See plantwide condition.

ii. There are no monitoring or recordkeeping requirements for this pollutant.

S3. **Reporting**
[Regulation 2.17, section 5.2]

The owner or operator shall report the following information, as required by General Condition 12:

a. Opacity

There are no reporting requirements for this pollutant.

b. PM/PM$_{10}$

See plantwide condition.

[28] The District has determined that no periodic visible emissions surveys are required for insignificant activities.
[29] This equipment cannot exceed the PM standard uncontrolled.

Emission Unit IA-3: Emergency Generators

UIA-3 Applicable Regulations

FEDERALLY ENFORCEABLE REGULATIONS		
Regulation	**Title**	**Applicable Sections**
40 CFR 60 Subpart IIII	Standards of Performance for Stationary Compression Ignition Internal Combustion Engines	60.4200 - 4219
40 CFR 60 Subpart JJJJ	Standards of Performance for Stationary Spark Ignition Internal Combustion Engines	60.4230 – 60.4248
40 CFR 63 Subpart ZZZZ	National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines	63.6585, 63.6590(a), 63.6590(c), 63.6675

DISTRICT ONLY ENFORCEABLE REGULATIONS		
Regulation	**Title**	**Applicable Sections**
5.00	Definitions	1, 2
5.01	General Provisions	1 through 2
5.20	Methodology for Determining Benchmark Ambient Concentration of a Toxic Air Contaminant	1 through 6
5.21	Environmental Acceptability for Toxic Air Contaminants	1 through 5
5.22	Procedures for Determining the Maximum Ambient Concentration of a Toxic Air Contaminant	1 through 5
5.23	Categories of Toxic Air Contaminants	1 through 6

UIA-3 Equipment

Emission Point	Description	Applicable Regulation	Control ID	Stack ID	Model Year
E65	Natural Gas-Fired Emergency Generator, Cummins, Model GGHE, 6.8 liters per cylinder, 60 KW (80.5 HP), 4 stroke spark engine, fuel consumption 861 ft^3/hr (I.A.)	40 CFR 60 Subpart JJJJ, 40 CFR 63 Subpart ZZZZ, STAR	NA	S24	2015

UIA-3 Control Devices

There are no control devices associated with this Emission Unit.

S1. Standards

[Regulation 2.17, section 5.1]

a. HAP

i. See Plantwide Specific Condition.

ii. The owner or operator shall meet the requirements of 40 CFR 63 Subpart ZZZZ by meeting the requirements of 40 CFR 60 Subpart JJJJ for spark engines (E65). No further requirements apply for such engines under 40 CFR 63 Subpart ZZZZ. [40 CFR 63.6590(c)]

b. PM/PM_{10}

See Plantwide Specific Condition.

c. TAC

See Plantwide Specific Condition.[30]

a. Unit Operation (40 CFR 60 Subpart JJJJ)

i. Owners and operators of stationary SI ICE with a maximum engine power greater than 19 KW (25 HP) and less than 75 KW (100 HP) (E65) must comply with the emission standards in Table 1 to 40 CFR 60 Subpart JJJJ for their emergency stationary SI ICE. [40 CFR 60.4233(d)][31]

Table 1 - Table 1 to 40 CFR 60 Subpart JJJJ

Engine Type	Power	Man. Date	Emission Standards					
			g/HP-hr			ppmvd at 15% O_2		
			NOx[32]	CO	VOC[33]	NOx	CO	VOC[33]
Emergency (E65)	25 < HP < 130	1/1/09	10	387	NA	NA	NA	NA

ii. Owners and operators of stationary SI ICE must operate and maintain stationary SI ICE that achieve the emission standards as required in §60.4233 over the entire life of the engine. [40 CFR 60.4234]

S2. Monitoring and Record Keeping

[Regulation 2.17, section 5.2]

[30] Natural gas combustion is *de minimis* for STAR per Regulation 5.21, section 2.7.

[31] Per the exhaust emission data sheet and compliance statement submitted with the application dated 8/3/2015, E65 will comply with the standards in Table 1 to 40 CFR 60 JJJJ with emissions of 7.3 g/HP-hr NOx + HC, 50.3 g/HP-hr CO, and 1.2 g/HP-hr VOC.

[32] Per footnote c to Table 1 to 40 CFR Subpart JJJJ, the emission standards applicable to emergency engines between 25 HP and 130 HP are in terms of NOx + HC.

[33] Per footnote d to Table 1 to 40 CFR 60 Subpart JJJJ, for purposes of 40 CFR 60 Subpart JJJJ, when calculating emissions of volatile organic compounds, emissions of formaldehyde should not be included.

The owner or operator shall maintain the following records for a minimum of five years and make the records readily available to the District upon request.

a. HAP

There are no monitoring or recordkeeping requirements.

b. PM/PM_{10}

See Plantwide Specific Condition.

c. TAC

See Plantwide Specific Condition.

d. Unit Operation (40 CFR 60 Subpart JJJJ)

i. If you are an owner or operator of an emergency stationary SI internal combustion engine that is less than 130 HP, was built on or after July 1, 2008, (E65) and does not meet the standards applicable to non-emergency engines, you must install a non-resettable hour meter upon startup of your emergency engine. (40 CFR 60.4237(c))

ii. If you are an owner or operator of a stationary SI internal combustion engine (E65) and must comply with the emission standards specified in §60.4233(d), you must demonstrate compliance according to according to one of the methods specified in §60.4243(b)(1) and (2). (40 CFR 60.4243(b))

iii. Purchasing an engine certified according to procedures specified in 40 CFR 60 Subpart JJJJ, for the same model year and demonstrating compliance according to one of the methods specified in §60.4243(a). (40 CFR 60.4243(b)(1))[34]

iv. If you own or operate an emergency stationary ICE (E65), you must operate the emergency stationary ICE according to the requirements in §60.4243(d)(1) through (3). In order for the engine to be considered an emergency stationary ICE under 40 CFR 60 Subpart JJJJ, any operation other than emergency operation, maintenance and testing, emergency demand response, and operation in non-emergency situations for 50 hours per year, as described in §60.4243(d)(1) through (3), is prohibited. If you do not operate the engine according to the requirements in §60.4243(d)(1) through (3), the engine will not be considered an emergency engine under this subpart and must meet all requirements for non-emergency engines. (40 CFR 60.4243(d))

[34] E65 is certified according to the procedures in 40 CFR 60 Subpart JJJJ.

(1) There is no time limit on the use of emergency stationary ICE in emergency situations. (40 CFR 60.4243(d)(1))

(2) You may operate your emergency stationary ICE for any combination of the purposes specified in §60.4243(d)(2)(i) through (iii) for a maximum of 100 hours per calendar year. Any operation for non-emergency situations as allowed by §60.4243(d)(3) counts as part of the 100 hours per calendar year allowed by §60.4243(d)(2). (40 CFR 60.4243(d)(2))

(a) Emergency stationary ICE may be operated for maintenance checks and readiness testing, provided that the tests are recommended by federal, state or local government, the manufacturer, the vendor, the regional transmission organization or equivalent balancing authority and transmission operator, or the insurance company associated with the engine. The owner or operator may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating that federal, state, or local standards require maintenance and testing of emergency ICE beyond 100 hours per calendar year. (40 CFR 60.4243(d)(2)(i))

(b) Emergency stationary ICE may be operated for emergency demand response for periods in which the Reliability Coordinator under the North American Electric Reliability Corporation (NERC) Reliability Standard EOP-002-3, Capacity and Energy Emergencies (incorporated by reference, see §60.17), or other authorized entity as determined by the Reliability Coordinator, has declared an Energy Emergency Alert Level 2 as defined in the NERC Reliability Standard EOP-002-3. (40 CFR 60.4243(d)(2)(ii))

(c) Emergency stationary ICE may be operated for periods where there is a deviation of voltage or frequency of 5 percent or greater below standard voltage or frequency. (40 CFR 60.4243(d)(2)(iii))

(3) Emergency stationary ICE may be operated for up to 50 hours per calendar year in non-emergency situations. The 50 hours of operation in non-emergency situations are counted as part of the 100 hours per calendar year for maintenance and testing and emergency demand response provided in paragraph (d)(2) of this section. Except as provided in paragraph (d)(3)(i) of this section, the 50 hours per year for non-emergency situations cannot be used for peak shaving or non-emergency demand response, or to generate income for a facility to an electric grid or otherwise supply power as part of a financial arrangement with another entity. (40 CFR 60.4243(d)(3))

(4) The 50 hours per year for non-emergency situations can be used to supply power as part of a financial arrangement with another entity if all of the following conditions are met: (40 CFR 60.4243(d)(3)(i))

(a) The engine is dispatched by the local balancing authority or local transmission and distribution system operator; (40 CFR 60.4243(d)(3)(i)(A))

(b) The dispatch is intended to mitigate local transmission and/or distribution limitations so as to avert potential voltage collapse or line overloads that could lead to the interruption of power supply in a local area or region. (40 CFR 60.4243(d)(3)(i)(B))

(c) The dispatch follows reliability, emergency operation or similar protocols that follow specific NERC, regional, state, public utility commission or local standards or guidelines. (40 CFR 60.4243(d)(3)(i)(C))

(d) The power is provided only to the facility itself or to support the local transmission and distribution system. (40 CFR 60.4243(d)(3)(i)(D))

(e) The owner or operator identifies and records the entity that dispatches the engine and the specific NERC, regional, state, public utility commission or local standards or guidelines that are being followed for dispatching the engine. The local balancing authority or local transmission and distribution system operator may keep these records on behalf of the engine owner or operator. (40 CFR 60.4243(d)(3)(i)(E))

v. Owners and operators of stationary SI natural gas fired engines may operate their engines using propane for a maximum of 100 hours per year as an alternative fuel solely during emergency operations, but must keep records of such use. If propane is used for more than 100 hours per year in an engine that is not certified to the emission standards when using propane, the owners and operators are required to conduct a performance test to demonstrate compliance with the emission standards of §60.4233. (40 CFR 60.4243(e))

vi. Owners and operators of all stationary SI ICE must keep records of the information in §60.4245(a)(1) through (4). (40 CFR 60.4245(a))

(1) All notifications submitted to comply with 40 CFR 60 Subpart JJJJ and all documentation supporting any notification. (40 CFR 60.4245(a)(1))

(2) Maintenance conducted on the engine. (40 CFR 60.4245(a)(2))

vii. If the stationary SI internal combustion engine is a certified engine, documentation from the manufacturer that the engine is certified to meet the

emission standards and information as required in 40 CFR parts 90, 1048, 1054, and 1060, as applicable. (40 CFR 60.4245(a)(3))

S3. Reporting
[Regulation 2.17, section 5.2]

The owner or operator shall report the following information, as required by General Condition 12:

a. HAP

See Plantwide Specific Condition.

b. PM/PM_{10}

See Plantwide Specific Condition.

c. TAC

See Plantwide Specific Condition.

d. Unit Operation (40 CFR 60 Subpart JJJJ)

There are no reporting requirements for this equipment.

Insignificant Activities

Equipment	PTE (tpy)	Regulation Basis
Diesel Storage Tank 1, 300 gal	0.00028 VOC	Regulation 1.02, Appendix A, 3.9.2
Diesel Storage Tank 2, 550 gal	0.00028 VOC	Regulation 1.02, Appendix A, 3.9.2
Waste Oil Storage Tank, 300 gal	0.00028 VOC	Regulation 1.02, Appendix A, 3.9.2
250 gallon Buffer Tank	0.01 tpy VOC	Regulation 1.02, Appendix A, 3.24
EI Room Furnace, 0.06 MMBtu/hr	0.03 tpy NOx	Regulation 1.02, Appendix A, 1.1
Warehouse Office Furnace, Trane XR80, 0.04 MMBtu/hr	0.04 tpy NOx	Regulation 1.02, Appendix A, 1.1
Warehouse Office Furnace, Trane XE78, 0.06 MMBtu/hr	0.03 tpy NOx	Regulation 1.02, Appendix A, 1.1
Warehouse Office Hot Water Heater, AO Smith ProMax, 0.04 MMBtu/hr	0.02 tpy NOx	Regulation 1.02, Appendix A, 1.1
Warehouse Office Hot Water Heater, AO Smith ProMax, 0.51 MMBtu/hr	0.22 tpy NOx	Regulation 1.02, Appendix A, 1.1
Welding Station 1	0.13 tpy $PM/PM_{10}/PM_{2.5}$	Regulation 1.02, Section 1.38.1.2.1
Welding Station 2	0.13 tpy $PM/PM_{10}/PM_{2.5}$	Regulation 1.02, Section 1.38.1.2.1
Lab 1[35]	0.6 tpy VOC	Regulation 1.02, Appendix A, 3.27
Truck Loading (E55) (only liquid stillage and syrup)	0.04 tpy VOC	Regulation 1.02, Section 1.38.1.2.1.

1. Insignificant activities identified in District Regulation 1.02, Appendix A, may be subject to size or production rate disclosure requirements.
2. Insignificant activities identified in District Regulation 1.02, Appendix A shall comply with generally applicable requirements.
3. The owner or operator shall annually submit an updated list of insignificant activities that occurred during the preceding year, with the compliance certification due April 15th.
4. Emissions from Insignificant Activities shall be reported in conjunction with the reporting of annual emissions of the facility as required by the District.
5. The owner or operator may elect to monitor actual throughputs for each of the insignificant activities and calculate actual annual emissions, or use Potential to Emit (PTE) as the annual emissions for each piece of equipment.
6. The District has determined that no monitoring, recordkeeping, or reporting requirements apply to the insignificant activities listed, except for the equipm`ent that has an applicable regulation and permitted under an insignificant activity (IA) unit.

[35] Lab 2 (Still Floor Lab) only includes mash balling (sugar measurement) and pH testing and does not emit any regulated emissions.

Appendix A - Default Emission Factors, Calculation Methodologies, and Stack Tests

Generally, emissions are calculated by multiplying the throughput (ton, MMCF, gallons, etc) or hours of operation of the equipment by the appropriate emission factor and accounting for any control devices unless otherwise approved in writing by the District.

U1 Grain Handling Operations		
Emission Point	**Description**	**Emission Factor/ Calculation Method**
E1	Truck/Rail Receiving – All Grain	AP-42, Table 9.9.1-1 0.035 lb PM/ton of grain 0.0078 lb PM_{10}/ton grain 0.0013 lb $PM_{2.5}$/ton grain
E3-1i	Two (2) grain screw conveyors from receiving pit to shaker/grain cleaner	AP-42, Table 9.9.1-1 0.061 lb PM/ton of grain 0.034 lb PM_{10}/ton grain 0.0058 lb $PM_{2.5}$/ton grain
E3-1ii		
E3a	Grain Cleaner/Shaker	AP-42, Table 9.9.1-1 0.75 lb PM/ton of grain 0.19 lb PM_{10}/ton grain 0.032 lb $PM_{2.5}$/ton grain
E3-2	Grain screw conveyor from shaker to bucket elevator	AP-42, Table 9.9.1-1 0.061 lb PM/ton of grain 0.034 lb PM_{10}/ton grain 0.0058 lb $PM_{2.5}$/ton grain
E3-3	Bucket elevator from grain screw conveyor to silos	
E3-4i	Two (2) grain screw conveyors from bucket elevator to Silos	
E3-4ii		
E2a	Corn Storage Silo #1	AP-42, Table 9.9.1-1 0.025 lb PM/ton of grain 0.0063 lb PM_{10}/ton grain 0.0011 lb $PM_{2.5}$/ton grain
E2b	Corn Storage Silo #2	
E8a	Small Grain (Malt) Storage Silo #1	
E8b	Small Grain (Wheat and Rye) Storage Silo (split compartment inside) #2	
E3-5	Interior Corn Screw Conveyor from silo to corn cage mill	AP-42, Table 9.9.1-1 0.061 lb PM/ton of grain 0.034 lb PM_{10}/ton grain 0.0058 lb $PM_{2.5}$/ton grain
E3-6	Small grain (Malt and Rye) screw conveyor from silo to small grain cage mill	
E4	Corn Cage Mill	AP-42, Table 9.9.1-2 0.012 lb PM/ton of grain 0.012 lb PM_{10}/ton grain 0.012 lb $PM_{2.5}$/ton grain
E10	Small Grain (Malt and Rye) Cage Mill	
E3-7i	Screw conveyor from corn cage mill to bucket elevator.	AP-42, Table 9.9.1-1 0.061 lb PM/ton of grain 0.034 lb PM_{10}/ton grain 0.0058 lb $PM_{2.5}$/ton grain
E3-8i	Screw Conveyor from small grain cage mill to bucket elevator	
E3-7ii	Bucket Elevator from screw conveyor to corn meal bins	
E3-8ii	Bucket elevator from screw conveyor to small grain meal bins	
E5a	Internal Grain (Corn) Storage Bin #1	AP-42, Table 9.9.1-1 0.025 lb PM/ton of grain 0.0063 lb PM_{10}/ton grain 0.0011 lb $PM_{2.5}$/ton grain
E5b	Internal Grain (Corn) Storage Bin #2	
E11a	Four (4) Internal Small Grain Storage Bins (Mash Rye Bin, Yeast Rye Bin, Mash Malt Bin, and Yeast Malt Bin)	
E11b		

U1 Grain Handling Operations		
Emission Point	**Description**	**Emission Factor/ Calculation Method**
E11c		
E11d		
E6	Gravity feed from corn meal storage bins to corn weigh hopper	AP-42, Table 9.9.1-1 0.061 lb PM/ton of grain 0.034 lb PM_{10}/ton grain 0.0058 lb $PM_{2.5}$/ton grain
E12a	Gravity feed from storage bins to slurry weigh hopper	
E12	Gravity feed from storage bin to yeast cooker hopper.	
E3-12i	Two (2) interior screw conveyors from corn weigh hopper to cookers	
E3-12ii		
E3-13	Interior screw conveyor from slurry weigh hopper to slurry tank	
E3-14	Gravity feed from yeast weigh hopper to yeast cooker	

U1A Fermentation and Distillation		
Emission Point	**Description**	**Emission Factor/ Calculation Method**
E40a	Fermentation Tank (42,000 gal)	AP-42, 9.12-.3-1 (Ethanol)
E40b	Fermentation Tank (42,000 gal)	
E40c	Fermentation Tank (42,000 gal)	
E40d	Fermentation Tank (42,000 gal)	
E40e	Fermentation Tank (42,000 gal)	
E40f	Fermentation Tank (42,000 gal)	
E40g	Fermentation Tank (42,000 gal)	
E40h	Fermentation Tank (42,000 gal)	
E40i	Fermentation Tank (42,000 gal)	
E40j	Fermentation Tank (42,000 gal)	
E40k	Fermentation Tank (42,000 gal)	
E40l	Fermentation Tank (42,000 gal)	
E41	Beer Well Tank (50,000 gal)	7.58×10^{-6} lb VOC/gallon
ST-1	#1 Still equipped with a low wine condenser	1% loss
ST-2	#2 Still equipped with a low wine condenser	1% loss
DB-1	Doubler/Thumper with high wine condenser for the #1 Still	1% loss
DB-2	Doubler/Thumper with high wine condenser for the #2 Still	1% loss
E42	Heads and Tails Tank (1,200 gal)	AP-42 Chapter 7.1

U2 Barrel Filling Operation		
Emission Point	**Description**	**Emission Factor/Calculation Method**
E13, E14, E15, and E16	Four (4) Cistern Tanks (30,000 gal each)	0.000187 lb VOC/gal
E52	Bulk Loadout Station	AP-42, Chapter 5.2 (Liquid Loading)

U2A Barrel Dumping Operations		
Emission Point	**Description**	**Emission Factor/Calculation Method**
E18a	10,000 gallon Bulk Storage Tank	0.000256 lb VOC/gal
E18b	10,000 gallon Bulk Storage Tank	
E18c	10,000 gallon Bulk Storage Tank	
E18d	30,000 gallon Bulk Exterior Storage Tank	
E18e	30,000 gallon Bulk Exterior Storage Tank	
E18f	30,000 gallon Bulk Exterior Storage Tank	
E18g	30,000 gallon Bulk Exterior Storage Tank	
E18h	7,300 gallon Blending Tank	
E18i	7,300 gallon Blending Tank	
E18j	7,300 gallon Blending Tank	
E18k	7,300 gallon Blending Tank	
E18m	7,300 gallon Blending Tank	
E18n	7,300 gallon Blending Tank	
E18p	7,300 gallon Blending Tank	
E18q	7,300 gallon Blending Tank	
E18r	20,000 gallon Blending Tank	
E53	Truck Loading Rack	AP-42, Chapter 5.2 (Liquid Loading)
E54	Truck Loading Rack	

U3 By-Products Process and Handling		
Emission Point	**Description**	**Emission Factor/Calculation Method**
TKS-1	Thick Stillage Tank (500 gal)	AP-42 Chapter 7.1
SBS-1	Setback Storage Tank (4,000 gal)	AP-42 Chapter 7.1
TNS-CT	Thin Stillage Catch Tank (less than 500 gal)	AP-42 Chapter 7.1
TNS-1	Thin Stillage Tank 1 (40,000 gal)	AP-42 Chapter 7.1
TNS-2	Thin Stillage Tank 2 (40,000 gal)	AP-42 Chapter 7.1
TNS-3	Thin Stillage Tank 3 (40,000 gal)	AP-42 Chapter 7.1
TNS-4	Thin Stillage Tank 4, Overflow Tank, (20,000 gal)	AP-42 Chapter 7.1
E31	Rotary Dryer #1	AP-42, Table 9.9.1-2
E32	Rotary Dryer #2	
E25	Distillers Dry Grain Storage Tank	
E25i	Screw Conveyor for Distillers Dry Grain Storage Tank to main screw conveyor	
E23	Minerals Storage Tank	
E23i	Screw Conveyor for Minerals Storage Tank to main screw conveyor	
E24	Solubles Storage Tank	
E24i	Screw Conveyor for Solubles Storage Tank to main screw conveyor	

U3 By-Products Process and Handling		
Emission Point	**Description**	**Emission Factor/Calculation Method**
E55	Loading Station	AP-42, Table 9.9.1-1

U4 Power Generation		
Emission Point	**Description**	**Emission Factor/Calculation Method**
E26	Boiler #1 – Henry Vogt; 90 MMBtu/hr; primary fuel is natural gas	For natural gas combustion, AP-42, Tables 1.4-1 through 1.4-4 3.2 lb ammonia/MMCF from FIRE 0.20 lb PM_{10} Filterable/MMCF, EPA NEI 0.11 lb $PM_{2.5}$ Filterable/MMCF EPA NEI 0.32 lb PM Condensable/MMCF EPA NEI
E27	Boiler #2 – Henry Vogt; 55 MMBtu/hr; natural gas	

U5 Low-Alcohol Bottling Line		
Emission Point	**Description**	**Emission Factor/Calculation Method**
E33	Slurry Tank, 450 gal	0.000492 lb VOC/gal
E34	Ingredient Tank, 12,000 gal	
E35	Batch Tank #1, 10,000 gal	0.0000409 lb VOC/gal
E36	Batch Tank #2, 10,000 gal	
E37	Batch Tank #3, 10,000 gal	
E57	Ingredient Tank, 30,000 gal	0.000492 lb VOC/gal
E58	Ingredient Tank, 20, 000 gal	
E59	Ingredient Tank, 10,000 gal	
E60	Ingredient Tank, 7,000 gal	
E61	Ingredient Tank, 10,490 gal	
E62	Bottle Filler, 28,395,200 gal/yr	0.548 lb VOC/1000 gal

U6 Barrel Storage and Aging Warehouse		
Emission Point	**Description**	**Emission Factor/ Calculation Method**
E64a, E64b, E64c, and E64d	Barrel Filling (4 filling stations)	0.875 lb VOC/barrel
E17 -B, E17 -G E17 -H, E17 -I E17 -J, E17 -K E17 -L, E17 -O	Barrel Storage Warehouse (8 warehouses, labelled B, G, H, I, J, K, L, and O)	
E63a, E63b, E63c, E63d, E63e, E63f, E63g, E63h, E63i, and E63j	Ten (10) Barrel Dumping Stations	

U1A-1 Cooling Towers		
Emission Point	**Description**	**Emission Factor/Calculation Method**
CT-1	Cooling Tower (Induced Draft)	AP-42, Table 13.4-1
CT-2	Cooling Tower (Induced Draft)	

U1A-2 Blast Cabinets		
Emission Point	**Description**	**Emission Factor/ Calculation Method**
BC-1 and BC-2	Two (2) blast cabinets using glass bead shot, 1265 lb/hr	AP-42, Table 13.2.6-1

U1A-3 Emergency Generators		
Emission Point	**Description**	**Emission Factor/Calculation Method**
E65	Natural Gas-Fired Emergency Generator, Cummins, Model GGHE, 6.8 liters per cylinder, 60 KW (80.5 HP), 4 stroke spark engine, fuel consumption 861 ft^3/hr	AP-42, Table 3.2-2 or Manufacturer's Specifications

Insignificant Activities	
Equipment	**Emission Factor/Calculation Method**
Diesel Storage Tank 1, 300 gal	AP-42 Chapter 7.1
Diesel Storage Tank 2, 550 gal	
Waste Oil Storage Tank, 300 gal	
250 gallon Buffer Tank	
EI Room Furnace, 0.06 mmBtu/hr	AP-42, Tables 1.4-1 through 1.4-4 3.2 lb ammonia/mmcf from FIRE 0.20 lb PM_{10} Filterable/MMCF Ron Myers EPA 0.11 lb $PM_{2.5}$ Filterable/MMCF Ron Myers EPA 0.32 lb PM Condensable/MMCF Ron Myers EPA
Warehouse Office Furnace, 0.04 mmBtu/hr	
Warehouse Office Furnace, 0.06 mmBtu/hr	
Warehouse Office Hot Water Heater, 0.04 mmBtu/hr	
Warehouse Office Hot Water Heater, 0.51 mmBtu/hr	
Welding Stations 1 and 2	AP-42, Table 12.19-2
Lab 1	Mass Balance
Truck Loading (E55)	AP-42, Chapter 5.2 (Liquid Loading)